

AN UPDATE ON SEA SURFACE TEMPERATURES  
ALONG THE CENTRAL CALIFORNIA COAST  
L. C. Breaker  
Naval Post Graduate School

Abstract

- Coastal time series of sea surface temperature (SST) at Granite Canyon (11 kn north of Pt. Sur) indicate large increases (up to +5C) associated with the 1982-83 El Niño episode. This event lasted almost twice as long as most previous episodes at this latitude. Coastal SSTs at Pacific Grove between 1940 and 1960 indicate major warmings in 1941 and in 1957-58, coincident with earlier El Niño episodes. Lesser events were not apparent in this record, suggesting that SST at Pacific Grove is not as sensitive an indicator of El Niño warming events as Granite Canyon.

Spectral analysis of SST at Pacific Grove over 60 years suggests the presence of several tidal components including the solar semiannual, the lunar monthly, and the lunar fortnightly tides. Aliases of the principal lunar diurnal and semidiurnal tidal components were also identified.